Art. II.—*On Cimicifuga and Iodine in Phthisis Pulmonalis.* By Chas. C. Hildreth, M. D., of Zanesville, Ohio.

To whom we are indebted for the original introduction to the notice of the profession, of the black snakeroot in phthisis, I am not able to discover. My attention was first directed to it by an article published in one of our western journals some eight or nine years since. But as the physician reporting the cases did not appear familiar with auscultation, and, of course, said nothing of the pathological state of the lungs of his patients, his communication on this account lost much of its interest.

My object here is to direct the attention of the profession to the use of the cimicifuga in the *incipient stage* of phthisis, when that train of constitutional symptoms is induced by the presence of induration, or tubercle, in the upper lobes, which even the common observer, without a knowledge of auscultation, will but too frequently, and justly, pronounce consumption.

In the latter stage of the disease, when tubercles are softened and excavated, and pus in abundance is thrown up, I should not expect much from this, or any other known treatment.

Here it may be asked, how are we to distinguish the disease in its *early stage* before those pathological lesions are induced in the lungs, which render it so truly a disgrace to the healing art? Any modern treatise on auscultation, will tell us on what physical, as well as rational signs to rely for a diagnosis.

Our best authors divide phthisis into three stages, in accordance with the pathological lesions:—

"The *first stage* is that of the formation of induration, whether granular or diffused. The *second*, is that of the conversion of those indurations into yellow tubercles, with the extension of this lesion to other parts. The *third*, is that of their softening and evacuation, and the formation of vomica."

The more readily to explain our views of the treatment of phthisis in its early stages, a few cases will be reported.

Case I. Phthisis complicated with general bronchitis. S. C——, ætat. 45, of strong constitution and temperate habits, residing two and a half miles from Zanesville, after atmospheric exposure, contracted bronchitis. This occurred in the early part of May, 1841. Supposing that he had simply "taken cold," as he expressed it, he continued to labour as usual in the open air, thus daily adding to the disease of his lungs. After confinement to his room and bed for about three weeks, and having exhausted his stock of domestic remedies, he sent for me to prescribe for him.

June 1st, 1841. Found the patient with all the symptoms of incipient phthisis complicated with most extensive bronchitis. He was in bed, in

the semi-recumbent posture, (for he could not lie horizontally on account of a sense of suffocation,) and throwing up the most profuse quantity of mucus and muco-purulent expectoration. For two weeks previously, he had suffered from general febrile symptoms during the day, and perspiration more or less profuse at night. His respiration was rapid and oppressed; pulse 100, compressible, and without force; but giving to the finger the sharp thrill of hectic irritation. He was rapidly losing flesh and strength.

The expectoration had occasionally during his illness been mixed with blood, but to no great extent.

The natural resonance of the chest on percussion was found but little impaired, except in the subclavian region of the right side; between which and the left a marked difference was perceptible.

Auscultation developed a general mucous and sub-mucous ronchus in all parts of the chest, obscuring in some measure the natural respiratory murmur. Bronchial respiration, and bronchophony, were more distinct over the right subclavian region than on the left. My diagnosis was induration or tuberculous deposition into the apex of the right lung, with perhaps general infiltration of miliary tubercles throughout the substance of both lungs; giving rise to, or sustaining the profuse bronchial secretion.

From the rational, and physical signs, I could not doubt the development of phthisis of a most rapidly exhausting character. "One of the most rapidly fatal forms of tuberculous disease, (says Dr. Williams,) is that of abundant miliary tubercles, attended by a general bronchial inflammation, the secretion from which is the chief cause of the dyspnœa and suffocation which ensue."

As the pulse did not indicate general depletion, I took blood by cups from the subclavian regions, but more especially from the right side, and immediately rubbed tartar emetic into the incisions from the scarificator. By this means, I received a freer suppurating surface, and strong counter-irritation over the diseased lobes. To diminish the profuse expectoration, and allay in some measure the almost constant cough, he was directed a combination of six grains of tartar emetic, one grain of morphine, in a pint of strong decoction of cimicifuga racemosa, prepared from the fresh root. Of this he was ordered a table-spoonful every hour, the dose to be increased if not found sufficient to produce occasional vomiting, when much oppressed from the profuse secretion into the bronchial tubes. He was directed also to take as freely as his stomach would bear of the decoction of the black snake-root in a separate state.

The proper attention was paid to his diet, clothing, and the state of the alvine secretions.

2*d*. Found the patient rather more comfortable; still expectorating very largely, but the cough not so incessant and harassing. He had vomited several times since my last visit, with considerable relief to his respiration; pulse 95; surface lower in temperature and moist. Had his usual paroxysm

of hectic fever in the evening, and perspiration in the night. Directed the treatment to be continued; gave an alterative cathartic during the day, and at night five grains of acetate of lead, and three of Dover's powder.

3*d*. Some amendment in the symptoms generally. Perspiration not so profuse at night, but a continuance of the fever. Continue the cimicifuga, but diminish the proportion of tartar emetic. The lead and Dover's powder at night.

5*th*. Patient decidedly better; pulse 85; expectoration rapidly diminishing; can resume the horizontal posture without inconvenience; sibilant and submucous ronchi in different parts of the chest, and the respiratory murmur much more distinct generally. The signs of induration in the apex of the right lung still persist. Continue treatment.

8*th*. The paroxysm of hectic fever, and perspiration at night, still continues, notwithstanding the subsidence of the bronchial inflammation. Expectoration still diminishing; cough of a more dry and hacking character, pulse 85 in the morning, but more rapid at night. With the view of more rapidly promoting absorption of the indurations, he was directed a solution of ten grains of iodine, and twenty of hydriod. potass, in an ounce of distilled water. Of this he was directed ten drops three times daily, in the decoction of the cimicifuga. Also the same decoction to be taken in the separate state in as large doses as the stomach will bear without nausea. To secure sleep, an anodyne to be taken regularly at night. The pustulation with tartar emetic to be continued.

My patient's amendment was now quite rapid; his appetite returned in a few days, and he began to complain of the farinaceous diet to which he was restricted; his cough and expectoration diminished daily; the hectic paroxysm gradually disappeared; his muscular strength gradually returned, and he took exercise in the open air, and on horseback.

July 10*th*. Cannot now detect by auscultation or percussion, any signs of induration or tubercle in the lungs, nor has he any of the constitutional symptoms of such lesions. The iodine and cimicifuga were continued as long as the breathing remained hurried on any slight exertion.

May 1*st*, 1842. The patient above referred to, still remains free from all pulmonary disease.

That this was not a case of simple bronchitis, or bronchorrhœa, may be inferred from the regular recurrence of the hectic paroxysm, which does not accompany bronchitis, when uncomplicated; also from the persistence of the hectic, after the profuse bronchial secretion had in a great measure ceased. In simple bronchitis, percussion gives a clear sound over the whole chest, and particularly over the upper lobes, which are usually last, if not least affected; whereas, in the case reported, the upper lobes (and especially the right,) were found dull on percussion, and remained so during the greater part of the treatment. That the signs of induration were not the result of pneumonia, may be inferred from the absence of all crepitation, and the

characteristic rusty tinge of the expectoration. That this man would have died with all the symptoms of phthisis of the most rapidly exhausting character, if much longer neglected, we have good reasons for believing.

Case II. James M'Ilvane, ætat. 23, of the scrofulous diathesis, and of a family in which phthisis is hereditary, consulted me concerning his cough May 5th, 1841. The history of his case, as detailed to me, is as follows:— In the February previous, after getting thoroughly wet in a storm, he contracted bronchitis; after recovering from the violence of which, he found himself subject to a frequent and rather dry hacking cough. As he took no remedies, (being absent from home,) his cough continued with him, and the expectoration gradually increased. In March and April, he found himself getting feverish in the afternoon, with an occasional profuse perspiration at night; his breathing became more rapid, and oppressed on any slight exertion; he had occasional transient pains in the chest, and all the prominent signs of phthisis, became marked and obvious.

I found him May 5th, 1841, with considerable febrile irritation during the day; pulse 110, compressible, and without force; respiration hurried and oppressed; frequent cough, with tolerably free mucous expectoration.

He had a regular paroxysm of hectic fever and sweat in the night, which left him quite exhausted in the morning. He was rapidly losing flesh and strength. I was shown some blood which he had expectorated during the night previous, amounting perhaps to an ounce, and was informed that on several other occasions during his illness, he had expectorated small quantities.

Percussion gave a clear sound over the whole chest, except in the subclavian regions; and here the sound was found decidedly more dull or flat over the left than the right side.

By auscultation, the respiratory murmur was found distinct in the lower lobes of each lung, but louder or more puerile over right side. Respiration more distinctly bronchial over the apex of left lung, and here also the sound of expiration was nearly as loud as that of inspiration. Mucous and submucous ronchus over the upper lobes of each lung.

Towards the humeral end of the clavicle of the left side, the resonance of the voice was so loud that at first I supposed I had found a cavity; but upon more careful observation found the voice deficient in that distinct articulation which characterizes pectoriloquy. As there was a marked difference in the sounds of respiration and resonance of the voice, between corresponding parts of the chest, I came to the diagnosis of induration, or tubercle in the apex of the left lung, and perhaps also of the right.

The same general plan of treatment was followed in this case as in the last. He was directed the free use of the cimicifuga in decoction; and to a pint of the same four grains of tartar emetic and one of morphine were added. Of this he was ordered a table-spoonful every two hours.

Tartar emetic was applied to the subclavian regions until pustulation followed; the bowels were attended to, and the proper diet and clothing directed.

At the expiration of a week the pulse had come down to near the natural standard; the cough was much better, and the febrile symptoms had nearly disappeared. For the purpose of more rapidly promoting absorption of the induration or tubercles, he was now directed the solution of iodine, and hydriodate, with the cimicifuga, in the same manner and quantity as in the last case.

His recovery was rapid and uninterrupted. Stimulating frictions to the surface, and exercise in the open air were of much service in restoring his strength.

The iodine and cimicifuga were continued as long as his breathing remained short on any slight exertion. He is now, May 5th, 1842, perfectly free from all pulmonary disease, and in robust health.

Case III. *Phthisis complicated with pneumonia and slight pleuritis.*—Was requested to visit Mrs. Wm. M'Clellan, ætat. 21, on May 19th, 1841. On inquiry, I ascertained that she had been troubled with a rather dry, hacking cough, for some six or eight weeks past, with occasional febrile symptoms, but had suddenly become much worse after getting her feet wet. I found her coughing frequently and violently; expectoration viscid, and rusty, with an occasional intermixture of blood. She had a slight stitch, on full inspiration, over the right lateral region; pulse 110, rather full and hard; respiration 32, and oppressed. Percussion yielded a dull sound over the right lateral and subclavian regions. Respiration puerile over the whole lung, except its apex, where the submucous and subcrepitant rales were occasionally heard; respiratory murmur very much obscured over the right lateral region; distinct crepitation over the middle and upper lobes of the right lung with bronchial respiration and bronchophony. The usual signs of slight pleuritic effusion were all present in the right lateral region. My patient's pulse justifying the measure, I immediately drew blood to approaching syncope, with decided relief to her respiration. Six grains of tartar emetic and one of morphine were dissolved in a pint of the cimicifuga decoction, of which a dose sufficient to produce nausea and occasional vomiting, was directed every two hours. A blister sufficiently large to cover the pleuritic effusion, and an alterative cathartic at night were also prescribed.

20*th*. Found her better in all respects. She still, however, had a slight stitch on full inspiration. Knowing her hereditary predisposition to phthisis, (for she was a sister of the gentleman whose case was last reported,) I determined as soon as possible to subdue the inflammation of the lungs and pleura, and bled her again to approaching syncope.

The tartar emetic was continued internally as before directed, and applied externally over the subclavian spaces.

21*st*.—Still improving; no stitch on full inspiration; expectoration becoming less viscid and rusty, and more decidedly mucous; continue treatment.

25*th*.—There are to-day no signs of pleuritic effusion: the crepitous rale has disappeared from all parts of the chest, and the natural vesicular murmur in a great measure returned. She still has cough, and mucous expectoration; and in the upper lobes the signs of bronchial irritation are still present.

As usual in acute inflammation of the lungs and pleura, she has had more fever at night than during the day; and occasionally, her fever has gone off by profuse perspiration; and now, notwithstanding the disappearance of the signs of inflammation in the parenchyma and serous membrane, the paroxysm of fever in the evening, and perspiration in the night still continues. Percussion, and the sounds of the voice, and respiration still indicate increased solidification of structure in the apex of the right lung.

Now this increase of density, must either originate in one of the products of inflammation of the parenchyma, viz., as hepatization, or must be traced to previous deposition of indurated matter or tubercle. That it is not the result of the pneumonia, I infer from the fact that the inflammation was not very violent or extensive; and being attacked as soon as developed, and yielding promptly to treatment, there had scarce been time for it to pass into the second stage. As pneumonia almost invariably attacks first the middle and lower lobes of the lungs, we would naturally expect them to suffer at least equally, with the upper; and hence, if the increase of density was from hepatization, we should expect it to be much more extensive. Again, during the continuance of hepatization, if any progress was making in its resolution, we should expect to find the characteristic rusty and viscid expectoration, and also more or less crepitation. These signs and symptoms of hepatization being absent, and in their stead, finding those of phthisis in its incipient stage, and these too occurring in a scrofulous subject, in whose family the disease may be considered hereditary; the diagnosis was to my mind clearly established.

May 28*th*.—The symptoms of phthisis still persisting, notwithstanding the subsidence of acute inflammation under treatment, I again directed the iodine solution with the cimicifuga in the same manner as before detailed: its influence was most happy: within a week the patient was decidedly convalescent; the pulse came down to near the natural standard; the hectic fever soon disappeared entirely, and with it the cough and all other signs of phthisis. Her appetite improved, and she was not so carefully restricted in its indulgence. As her strength returned, she took exercise in the open air, on horseback.

Stimulating frictions, warm clothing, change of air, &c., soon restored her to health. The iodine and cimicifuga were continued until her convalescence was fairly established, or until that shortness of breath so common in phthisis, had ceased to trouble her.

She is now, May 5, 1842, free from all pulmonary disease, and in perfect health.

Many other cases of a similar character might be reported, did the limits of this paper permit; but we deem these sufficient to illustrate the general plan of treatment pursued. As in phthisis, we find a great variety of causes, symptoms, and complications; so in its management must our remedies vary to meet existing indications. Nor should we rest satisfied with the mere removal of the lesions of phthisis from the lungs, however limited they may have been; but should remember, that this disease when once developed readily becomes a constitutional affection, that the fluids and solids become contaminated, and we have but little security against the deposition of tubercle in other organs. Hence constitutional treatment is of the utmost moment. To render this effective, the purest air should be selected for our patient, and if his circumstances will permit, such a climate as will justify him in taking regular and sufficient exercise in the open air; his diet should be as nutritious as the digestive organs can assimilate, without too much exciting the arterial system. Such remedies as give tone to the system, and promote the healthy functions of all the organs; proper clothing, and frictions to maintain the healthy function of the skin; these are the means indicated to invigorate the constitution, and enable it to throw off disease, or prevent its reinvasion of the lungs or other organs.

The practice of daily sponging the chest with cold water, or a spirituous solution of common salt, will tend to prevent that susceptibility to catarrhal affections, which in some constitutions leads directly to phthisis. Should tonics of any kind be indicated in the treatment of this disease, the prunus virginiana will be found least irritating among the vegetable bitters, and from the mineral kingdom, the iodide of iron will prove most beneficial, especially in anemic or chlorotic subjects

With a few remarks on the general character of the cimicifuga, we will close this communication.

It is much to be regretted that the medicinal qualities of the black snakeroot are not more accurately defined. While some authors ascribe to it "deobstruent and narcotic properties," others consider it a "slight tonic, possessing also the property of stimulating the secretions of the skin, kidneys, and pulmonary mucous membrane." It is chiefly employed, say "Wood and Bache," in "rheumatism, dropsy, hysteria, and various affections of the lungs; particularly those *resembling consumption.*" Dr. Gerhard, in speaking of its use in rheumatism, styles it a slight narcotic, possessing some diaphoretic and alterative properties.

That it has narcotic properties, somewhat similar to those of colchicum, veratrum album, or digitalis, we cannot for a moment doubt, after observing its influence on the brain, stomach, vascular and nervous systems. Thus a a large dose of the strong decoction or tincture, will produce vertigo, and impaired vision, nausea and vomiting, reduce the action of the heart and

arteries, and induce perspiration. Its influence in diminishing nervous irritability or involuntary muscular action, is very obvious in chorea.

That it is not a narcotic of very active or violent character, may be inferred from the *quantity* of the decoction which can be borne without inducing decided or alarming narcotism. We have known a pint of the strong decoction (made from two ounces of the root) taken in the course of two hours by an adult. The consequences were vertigo, impaired vision, two or three effectual efforts at vomiting and perspiration; but no alarming narcotism or prostration. Its influence on the urinary organs was not noticed.

The saturated tincture possesses far more active narcotic powers, and requires much more caution in its exhibition; from one to two drachms will be found a full dose for an adult.*

In chorea we have given the strong decoction with aromatics, (when much objection is made to its nauseous taste,) also the saturated tincture, or the powder of the dried root: and by thus varying that form of exhibition, we often secure its continuance for a much longer period, than if one preparation alone were used.

In phthisis, we prefer the decoction of the fresh root, because it contains mucilage, is very readily prepared, and is free from the stimulating influence of the alcohol in the tincture.

We direct the patient as large a dose as the stomach will bear without inducing vomiting, every two or three hours when awake; and make it the vehicle for the exhibition of whatever other remedies the peculiarity of the case may require.

In acute phthisis, uncomplicated with much inflammation in the vesicular structure, or pulmonary mucous or serous membranes, we have often seen the most prompt action of the decoction alone, in throwing off febrile excitement or the hectic paroxysm, allaying cough, reducing the rapidity and force of the pulse, and inducing gentle perspiration. In those intercurrent congestions and inflammations, so frequent in the second and third stages of phthisis, from atmospheric exposures, we have often seen the same happy influence exerted. When tubercles, however, are softened down and excavated, we have been disappointed in effecting permanent cures by this, and all other known remedies.

That iodine in combination with various bases, possesses unequivocal powers in promoting absorption or resolution of tubercle or induration, we have the evidence of such names as Baron, Morton, Williams, and many others. That the inhalation of iodine and conium, as directed by Scudamore, will prove a valuable adjuvant in the dispersion of the early lesions of phthisis, we cannot for a moment doubt; but practically cannot speak of its efficacy.

* My father, Dr. S. F. Hildreth of Marietta, informs me that he prefers the saturated tincture of the cimicifuga, to the lobelia, as an antispasmodic in asthma. The dose is nearly the same as that of the lobelia in tincture.

We have not ventured to give any of the preparations of iodine, in phthisis, until as far as possible we have removed all signs of inflammation from the lungs or pleura, by antiphlogistic or other means; and have then given it with full doses of the cimicifuga, that its stimulant influence might not be felt injuriously.

In this manner of exhibition it has almost uniformly improved the appetite and nutritive function; diminished febrile irritation and cough; and in all respects acted favourably; indeed we have in numerous instances been surprised at the prompt and permanent restoration of our patients, under its use, from a state, as we believed, of well developed phthisis to perfect health.

ART. III.—*On Typhoid Pneumonia, as it occurs in the neighbourhood of Columbia, S. C.* By R. W. GIBBES, M. D., of Columbia, S. C.

THIS disease prevails extensively during the winter months on our river swamp plantations, and destroys more negroes than all others combined, to which they are ordinarily liable. It is a matter of surprise, that so little has been published in relation to it. In the whole series of the American Medical Journal, there is but a single communication on the subject, and that is of an epidemic which prevailed in the west, and was confined chiefly to whites. Having for eight years been familiar with this affection in attendance upon a large number of negroes on the plantations in this neighbourhood, I have thought that an account of my experience with it might be interesting.

I would here premise, that I am fully impressed with the conviction that the treatment of disease with negroes must differ much from that of whites. The negro lives a life of constant exercise, and exposure to changes of weather; he uses a diet seldom varying; he has a fixed and certain amount of labour to practise, and he usually indulges in no excesses. The action of his system is more equable; his nervous power is more regularly distributed, and the various functions of the organs are less apt to be impeded than with whites who live more or less irregularly. Negroes suffer more from the diseases of cold weather, and but little from heat; they are less liable than whites to inflammatory affections; inflammation is not so active, and is much more readily controlled with them; they are more easily brought under the influence of medicine; hence their diseases are more curable. I speak of plantation negroes;—those who are employed in domestic attendance on families and in cities, differing in their habits, have their complaints